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A - [001] 014 04- 231 244 245 52& 53& 532 537 575 583 589 59& 611 623 624

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DC - A97 C01

DR - 1680-U 1696-U 1697-U 1706-U 1773-U 1786-U 1842-U 1895-U

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IC - A01N25/04 ; A01N57/00

KS - 0231 2007 2575 2585 3261 3262 3273

MC - A10-E09B A12-W04B C04-C03A C05-A01B C05-B01K C12-L10 C12-M03

M1 - [02] H4 H401 H481 H7 H713 H721 M210 M212 M272 M281 M320 M423 M431 M510
M520 M530 M540 M782 M903 M904 M910 Q620 R022 V0 V743; R21380-M R21380-Q

M2 - [01] B515 B701 B712 B721 B731 B815 B831 G015 G100 H3 H341 M210 M211
M212 M214 M231 M240 M272 M273 M281 M320 M411 M431 M510 M520 M531 M540
M782 M903 M904 Q620 R022; R16471-M

- [03] A111 A940 C017 C100 C730 C801 C803 C804 C805 C806 C807 M411 M431
M782 M903 M904 M910 Q620 R022; R01706-M

- [04] A111 A940 C108 C307 C510 C730 C801 C802 C803 C804 C807 M411 M431
M782 M903 M904 M910 Q620 R022; R01696-M

- [05] A111 A940 C107 C108 C520 C730 C801 C802 C803 C804 C807 M411 M431
M782 M903 M904 M910 Q620 R022; R01697-M

- [06] A119 A940 C108 C316 C540 C730 C801 C802 C803 C804 C805 M411 M431
M782 M903 M904 M910 Q620 R022; R01773-M

- [07] A212 A940 C108 C316 C540 C730 C801 C802 C803 C804 C805 M411 M431
M782 M903 M904 M910 Q620 R022; R01680-M

- [08] A220 A940 C017 C100 C730 C801 C803 C804 C805 C806 C807 M411 M431
M782 M903 M904 M910 Q620 R022; R01895-M

- [09] C108 C316 C500 C540 C730 C801 C802 C804 M411 M431 M782 M903 M904
M910 Q620 R022; R01786-M

PA - (SUMO) SUMITOMO CHEM CO LTD

PN - JP5025011/A 19930202 DW199310 A01N57/00 005pp

PR - JP19910175056 19910716

XA - C1993-035760

XIC - A01N-025/04 ; A01N-057/00

AB - J05025011 The emulsion is composed of 1-50 wt. % of liq. phosphorous agricultural active ingredient having water solubility of 1,000 ppm or less at 10 deg. C, 1-10 wt. % of a dispersing agent, partic. polyvinyl alcohol, glutinous alumina hydrate having specific surface area of 200-500 m²/g in boehmite or amorphous crystals at concns. of 0.1-2.0 t% as Al₂O₃, 0.1-20 wt. % of an inorganic salt, partic. 2-20 wt. % of monobasic acid salt, and water.

- Organic phosphorous agricultural chemicals is mixed with a dispersing agent (e.g. surfactant and water soluble polymers, partic. PVA having polymerisation deg. of 300-2,000, (500-1,500) saponification value of 60-98 mol. %) together with a glutinous alumina hydrate having claimed properties (e.g. alumina sol), and an inorganic acid salt (eg., NaCl, NaNO₃, NaNO₂, K₂SO₄, MgSO₄, CaCl₂ and (NH₄)₂SO₄). Other additives (eg., thylene glycol, glycerin and propylene glycol) may be used.

- USE/ADVANTAGE - The O/W type emulsion is stable at relatively high temp.

- In an example, a mixt. of 20 pts. of O- thyl,

O-(3-methyl-6-nitrophenyl) sec-butyl phosphoramidothioate, 30 pts of 10 wt. % PVA was homogenised at 5,000 rpm for five mins. Separately, 24 pts. of an alumina sol. contg. 10 wt. % of Al_2O_3 and 73.6 pts. of deionised water were mixed at 5,000 rpm and 2.4 pts. of anhydrous $\text{Al}_2(\text{SO}_4)_3$ was added slowly with stirring for five mins. to give a thick soln. of alumina sol- Na_2SO_4 . Equal vol. of the two solns. were homogenised with slow stirring to give 100 pts. of the aimed compsn. contg. 20 wt. % of effective ingredient having particle sizes of 1-40 microns and viscosity of 341 cp. The compsn. was kept at 60 deg. C for a month and showed good dispersibility without sepn. of effective ingredient v(Dwg.0/0)

CN - R01680-M R01696-M R01697-M R01706-M R01773-M R01786-M R01895-M
R16471-M R21380-M R21380-Q

IW - OIL WATER TYPE AGRICULTURE EMULSION STABILISED HIGH TEMPERATURE
COMPRISE LIQUID PHOSPHORUS AGRICULTURE ACTIVE INGREDIENT DISPERSE PVA
GLUTINOUS ALUMINA HYDRATE INORGANIC SALT WATER

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NC - 001

OPD - 1991-07-16

ORD - 1993-02-02

PAW - (SUMO) SUMITOMO CHEM CO LTD

TI - Oil-in-water type agricultural emulsion stable at high temp. -
comprises liq. phosphorus agricultural active ingredient, dispersant
e.g. PVA or glutinous alumina hydrate, inorganic salt and water